

reference number for the step 162 at which the velocity of the consist is tested against the 0.5 MPH value, described in the specification on page 31, lines 5-6, was inadvertently omitted. That error has been corrected: the reference number --162-- has been added.

Note the correction to FIG. 17a as shown in red on the attached copy of the drawing. Specifically, the misspelled word "currently" has been corrected.

Note the correction to FIG. 17b as shown in red on the attached copy of the drawing. Specifically, the reference number for the step 180, described in the specification on page 33, lines 3-10, was inadvertently omitted. That error has been corrected: the reference number --180-- has been added.

In the Claims:

Please cancel claims 1 and 2 without prejudice, amend claim 3, and add claims 4-24 as follows:

- B
- 1 ~~3.~~ (Amended) A remote control system <sup>in connection with</sup> ~~for~~ a
- 2 locomotive including a main tank with compressed air
- 3 under pressure, a pneumatic brake line in which
- 4 compressed air flows, and a member applying tractive
- 5 power, said remote control system comprising:
- 6 a) a transmitter for generating an RF [binary
- 7 coded] signal; and
- 8 b) a slave controller mounted on-board the
- 9 locomotive, said slave controller [comprising:] having
- 10 [-] a first sensor responsive to the pressure of the
- A2

02  
11 compressed air in [a] the main tank of the [said]  
12 locomotive[;] and [-] a second sensor responsive to the  
13 flow of compressed air in [a] the pneumatic brake line,  
14 said slave controller being responsive to outputs  
15 [output] of said sensors to enable application of  
16 tractive power to [said] the locomotive only when [a] the  
17 pressure in the [said] main tank is above a predetermined  
18 level and [a] the flow of air in the pneumatic [said]  
19 brake line is below a predetermined level.

B  
1 ~~24.~~ (Added) A remote speed control system <sup>in connection with</sup> ~~for~~  
2 a locomotive that includes a main tank with compressed  
3 air, a pneumatic brake line in which compressed air  
4 flows, a throttle having a plurality of settings allowing  
5 tractive power regulation, and a brake system having a  
6 plurality of settings allowing braking power regulation,  
7 said speed control system comprising:

03  
8 a transmitter generating an RF signal  
9 indicative of a desired speed of travel of the  
10 locomotive; and

11 a slave controller mounted on-board the  
12 locomotive, said slave controller having:

13 a) receiver means for sensing said RF  
14 signal and providing data relative to the desired speed  
15 of travel of the locomotive,

16 b) a first sensor responsive to the  
17 pressure of the compressed air in the main tank of the  
18 locomotive,

19 c) a second sensor responsive to the  
20 flow of compressed air in the pneumatic brake line of the  
21 locomotive, and

22 d) processor means for receiving said  
23 data relative to the desired speed of travel of the  
24 locomotive from said receiver means, said processor means  
25 responsive to said first sensor means, to said second  
26 sensor means, and to said data relative to the desired  
27 speed of travel for generating a throttle setting signal  
28 causing the throttle of the locomotive to acquire a  
29 selected setting when the pressure of the compressed air  
30 in the main tank is above a predetermined level and the  
31 flow of compressed air in the pneumatic brake line is  
32 below a predetermined level.

B AB 1 <sup>3</sup> 5. (Added) A remote speed control system, <sup>in connection with</sup> ~~for~~  
2 a locomotive that includes a throttle having a plurality  
3 of settings allowing tractive power regulation and a  
4 brake system having a plurality of settings allowing  
5 braking power regulation, said speed control system  
6 comprising:

7 a transmitter generating an RF signal  
8 indicative of a desired speed of travel of the  
9 locomotive; and

10 a slave controller mounted on-board the  
11 locomotive, said slave controller having:

12 a) receiver means for sensing said RF  
13 signal and providing data relative to the desired speed  
14 of travel of the locomotive,

15                   b)    velocity sensor means for generating  
16 data representative of an actual speed of travel of the  
17 locomotive, and

18                   c)    processor means for receiving data  
19 relative to the desired speed of travel of the locomotive  
20 from said receiver means and generating a throttle  
21 setting signal causing the throttle of the locomotive to  
22 acquire a selected setting and a brake setting signal  
23 causing the brake system of the locomotive to acquire a  
24 selected setting, said processor means being responsive  
25 to said velocity sensor means and to said data relative  
26 to the desired speed of travel and generating one of said  
27 throttle setting signal and said brake setting signal  
28 correlated to a difference between the desired speed of  
29 travel and the actual speed of travel of the locomotive  
30 to change the actual speed of travel of the locomotive  
31 and diminish that difference.

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1 <sup>4</sup>/<sub>8</sub>. (Added) <sup>B1</sup> ~~A remote speed control system for~~  
2 ~~a locomotive as claimed in claim 3,~~ wherein said  
3 processor means includes means for comparing said data  
4 relative to the desired speed of travel of the locomotive  
5 with said data representative of an actual speed of  
6 travel of the locomotive and generating an error signal  
7 correlated to the difference between the actual and  
8 desired speeds, said throttle setting signal being a  
9 linear combination of said error signal, its derivative,  
10 and its integral.

1 <sup>5</sup>/<sub>1</sub>. (Added) <sup>B1</sup> ~~A remote speed control system for~~  
2 ~~a locomotive as claimed in claim 3,~~ wherein said  
3 processor means includes means for comparing said data  
4 relative to the desired speed of travel of the locomotive  
5 with said data representative of an actual speed of

6 travel of the locomotive and generating an error signal  
7 correlated to the difference between the actual and  
8 desired speeds, said brake setting signal being a linear  
9 combination of said error signal, its derivative, and its  
10 integral.

*no B1 B*  
1 <sup>6</sup> ~~8.~~ (Added) <sup>B1</sup> ~~A remote speed control system for~~  
2 ~~a locomotive as claimed in claim 3,~~ wherein said velocity  
3 sensor means includes a first velocity sensor generating  
4 a first signal representative of a speed of travel of the  
5 locomotive and a second velocity sensor generating a  
6 second signal representative of a speed of travel of the  
7 locomotive, said processor means being responsive to a  
8 discrepancy between said first and second speed of travel  
9 signals and issuing a brake setting signal causing the  
10 brake system of the locomotive to apply braking power.

*no B1 B*  
1 <sup>7</sup> ~~9.~~ (Added) ~~A remote speed control system for~~  
2 ~~a locomotive as claimed in claim 3,~~ wherein said slave  
3 controller has means for generating data representative  
4 of a direction of travel of the locomotive.

*B*  
1 <sup>8</sup> ~~10.~~ (Added) A remote coast control system <sup>in connection with</sup> ~~for~~  
2 a locomotive that includes a throttle having a plurality  
3 of settings allowing tractive power regulation and a  
4 brake system having a plurality of settings allowing  
5 braking power regulation, said coast control system  
6 comprising:

7 a transmitter generating an RF signal providing  
8 a coast command to the locomotive;

9 a slave controller mounted on-board the  
10 locomotive, said slave controller having:

- 11 a) receiver means for sensing said RF  
12 signal and providing said coast command,
- 13 b) means for generating data  
14 representative of a velocity variation of the locomotive  
15 with relation to time, and
- 16 c) processor means receiving said coast  
17 command from said receiver means and generating in  
18 response to said data representative of a velocity  
19 variation of the locomotive with relation to time one of  
20 (i) a brake setting signal causing the brake system of  
21 the locomotive to increase braking power when said  
22 velocity variation denotes a positive acceleration, and  
23 (ii) a brake setting signal causing the brake system of  
24 the locomotive to decrease braking power when said  
25 velocity variation denotes a negative acceleration, said  
26 processor means controlling the velocity of the  
27 locomotive without effecting any application of tractive  
28 power.

1 <sup>9</sup>  
2 ~~11. (Added) <sup>B1</sup> A remote coast control system for~~  
3 ~~a locomotive as claimed in claim 10, wherein said brake~~  
4 ~~setting signal is a linear combination of an error signal~~  
5 ~~representing a difference between an actual velocity of~~  
6 ~~the locomotive and a velocity of the locomotive measured~~  
at a previous moment, its derivative, and its integral.

1 <sup>10</sup>  
2 ~~12. (Added) <sup>B1</sup> A remote coast control system for~~  
3 ~~a locomotive as claimed in claim 9, further comprising a~~  
4 ~~velocity sensor measuring an actual speed of travel of~~  
5 ~~the locomotive, said velocity sensor communicating actual~~  
speed of travel data to said processor means.

11  
13. (Added) ~~A remote coast control system for~~  
2 ~~a locomotive as claimed in claim 10,~~ wherein said brake  
3 setting signal generated when said velocity variation  
4 denotes a negative acceleration represents a non-nil  
5 brake system setting, whereby braking power is applied to  
6 the locomotive at all times when said velocity variation  
7 denotes one of a positive and a negative acceleration.

12  
14. (Added) A remote control system <sup>in connection with</sup> ~~for~~ a  
2 locomotive that includes a throttle allowing tractive  
3 power regulation and a brake system allowing braking  
4 power regulation, said remote control system comprising:

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5 a transmitter generating an RF signal providing  
6 a drive command that signals the locomotive to move in a  
7 first direction of travel;

8 a slave controller mounted on-board the  
9 locomotive, said slave controller having:

10 a) receiver means for sensing said RF  
11 signal and providing data indicative of said drive  
12 command,

13 b) sensor means for generating data  
14 representative of a direction of travel of the  
15 locomotive, and

16 c) processor means receiving said data  
17 indicative of said drive command from said receiver means  
18 and generating a throttle signal causing application of  
19 tractive power to the locomotive, said processor means  
20 also receiving said data representative of a direction of  
21 travel of the locomotive from said sensor means and  
22 generating a brake signal causing application of the

23 brakes when the locomotive moves in a direction other  
24 than said first direction of travel.

13.  
1 ~~15.~~ (Added) ~~A remote control system for a~~  
2 ~~locomotive as claimed in claim 14,~~ wherein said processor  
3 means generates said brake signal causing application of  
4 the brakes when the locomotive moves in a direction other  
5 than said first direction of travel after a predetermined  
6 amount of time has elapsed from the application of  
7 tractive power to the locomotive.

14.  
1 ~~16.~~ (Added) ~~A remote control system for a~~  
2 ~~locomotive as claimed in claim 14,~~ wherein said  
3 predetermined amount of time is about 20 seconds.

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15.  
1 ~~17.~~ (Added) A remote drive control system <sup>in connection with</sup> for  
2 a locomotive with rollback protection, the locomotive  
3 including a throttle allowing tractive power regulation  
4 and a brake system allowing braking power regulation,  
5 said remote drive control system comprising:

6 a transmitter generating an RF signal providing  
7 a drive command that signals the locomotive to start  
8 moving in a first direction of travel;

9 a slave controller mounted on-board the  
10 locomotive, said slave controller comprising:

11 a) receiver means for sensing said RF  
12 signal and providing data indicative of said drive  
13 command,



14                   b)    sensor means generating data  
15   representative of an actual direction of travel of the  
16   locomotive, and

17                   c)    processor means receiving said data  
18   indicative of said drive command from said receiver means  
19   and issuing a throttle signal causing application of  
20   tractive power to the locomotive, said processor means  
21   also receiving said data representative of an actual  
22   direction of travel of the locomotive from said sensor  
23   means and generating a brake signal causing application  
24   of the brakes when the locomotive moves in a direction  
25   other than said first direction of travel and a  
26   predetermined period of time has elapsed from the  
27   application of tractive power to the locomotive.

16  
1   ~~18. (Added) A remote drive control system for~~  
2   ~~a locomotive as claimed in claim 17, wherein said~~  
3   ~~predetermined period of time is about 20 seconds.~~

1                   19. ~~(Added) A remote control system for a~~  
2   ~~locomotive, comprising:~~

3                   a first transmitter generating a set of RF  
4   signal commands, each RF signal command signalling the  
5   locomotive to execute a certain function;

6                   a second transmitter generating a set of RF  
7   signal commands, each RF signal command from the set of  
8   said second transmitter signalling the locomotive to  
9   ~~execute a certain function; and~~

10 ~~a slave controller receiving RF commands from~~  
11 ~~said first transmitter and from said second transmitter,~~  
12 ~~said slave controller being responsive:~~

13 ~~i) to at least one RF signal command~~  
14 ~~generated by said first transmitter causing the~~  
15 ~~locomotive to execute a predetermined function,~~

16 ~~ii) to at least one RF signal command~~  
17 ~~generated by said second transmitter causing the~~  
18 ~~locomotive to execute a predetermined function, and~~

19 ~~iii) to an RF signal command other than~~  
20 ~~said at least one RF signal command generated by a~~  
21 ~~selected one of said first and second transmitters to~~  
22 ~~cause the locomotive to perform a certain function.~~

1 20. (Added) A remote control system for a  
2 locomotive as claimed in claim 19, wherein said slave  
3 controller rejects an RF command, other than said at  
4 least one RF signal command, issued from a non-selected  
5 one of said first and second transmitters.

1 21. (Added) A remote control system for a  
2 locomotive as claimed in claim 20, wherein said slave  
3 controller assigns to each one of said first and second  
4 transmitters one of a command authority holder  
5 operational status and a command authority non-holder  
6 operational status, said slave controller being  
7 responsive to an RF signal command other than said at  
8 least one frequency signal command solely generated by a  
9 transmitter having a command authority holder operational  
10 status.

1                   22. ~~(Added) A remote control system for a~~  
2 locomotive as claimed in claim 21, wherein said slave  
3 controller is responsive to a command authority  
4 relinquish RF signal command generated by one of said  
5 first and second transmitters having a command authority  
6 holder operational status to assign the command authority  
7 holder operational status to the other of said first and  
8 second transmitters.

1                   23. (Added) A remote control system for a  
2 locomotive as claimed in claim 21, wherein said slave  
3 controller is responsive to:

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4                   i) a command authority relinquish RF  
5 signal command generated by one of said first and second  
6 transmitters having a command authority holder  
7 operational status; and

8                   ii) a command authority acceptance RF  
9 signal command generated by the other of said first and  
10 second transmitters having a command authority non-holder  
11 operational status, to assign the command authority  
12 holder operational status to the other of said first and  
13 second transmitters.

1                   24. (Added) A remote control system for a  
2 locomotive as claimed in claim 19, wherein said at least  
3 one RF signal command signals said slave controller to  
4 ~~effect application of braking power.~~